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REMARKS

An excess claim fee payment letter is submitted herewith for three (3) excess claims.

Claims 1-16 and 19-26 are all the claims presently pending in the application. Claims 1-16 and 19-23 stand rejected on prior art grounds. This Amendment amends claims 1-4, 8, 10, 14, and 21, and adds claims 24-26. Attached hereto is a marked-up version of the changes made to the claims by the current Amendment.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

With respect to the prior art rejections, claims 1-5, 8-9, and 22-23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Watts, Jr., et al (Watts) (U.S. Patent No. 6,341,320). Claims 6-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Watts. Claims 10-15 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Watts in view of Lim (U.S. Patent No. 6,181,318). Claims 16 and 20-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Watts.

These rejections are respectfully traversed in view of the following discussion.

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I. THE CLAIMED INVENTION

The present invention is directed to a docking station for a mobile computer, which includes a dock housing for being coupled to a desktop display and including a first bus, and an extended bridge that is coupled between said first bus and a second bus, where the first bus resides in the dock housing and the second bus is coupled to the mobile computer. The extended bridge separates the first bus and the second bus. The invention further includes an adjustable docking sleeve for mounting into the dock housing, where the mobile computer is slidably fitted into the docking sleeve and mates with a connector for a secondary bus.

Conventional mobile computer docking stations require a single sized docking bay which allows only a single type of computer to connect with the station. These docking stations also do not provide flexibility with connecting busses, thereby limiting the types and placement of connections between a mobile computing device and a docking station.

With the docking station of the present invention, a desktop station can dock various sizes and types of mobile computing devices to a system that provides high resolution graphics and a full input/output bus bandwidth similar to a desktop computer.

II. THE PRIOR ART REJECTIONS

The Examiner alleges that Watts anticipates the claimed invention according to 35 U.S.C. § 102(e) and renders the invention obvious according to 35 U.S.C. § 103(a). Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by Watts.

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THE WATTS REFERENCE

The Examiner alleges column 4, line 65 - column 5, line 1; and Figures 6, 53, and 55 of Watts teach a bridge coupled between a first bus and a second bus, as defined in claim 1.

However, Watts discloses a different structure for a docking station than the dock housing and first and second busses of the claimed invention.

First, Watts clearly fails to disclose or suggest an extended bridge that is coupled between a first bus and a second bus. The passages from Watts merely state that the docking system in Watts will make connections to the mobile computer 13.

Watts discloses that "an automatic docking system will make connections to the bus connector 13" Indeed, this aspect of a docking station is not only an inherent aspect of every mobile computer docking station (e.g., to link the docking station to the mobile computer) but also does not teach or suggest "an extended bridge that is coupled between said first bus and a second bus," as recited in claim 1.

As is clear from Watts, serial port 13d is for use only while the mobile computer is in a stand-alone unit, not while mobile computer 13 is housed in and linked to the docking station. Watts fails to disclose or suggest a second bus in the mobile computer that connects to an extended bridge and to the first bus in the docking station. Therefore, contrary to the Examiner's assertions, serial port 13d cannot be a second bus and "connector 13" cannot be a "bridge for connecting a serial bus 13d (first bus) of the portable computer 13d," (see Office Action, p. 3, paragraph 7).¹

¹The Office Action, paragraph 7, states "a bridge for connecting serial bus 13d (first bus) of the portable computer 13d and expansion bus (second bus) of docking station 10." Applicant

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Watts merely discloses a back-end of mobile computer 13 having various connection ports to the computer, such as serial buss 13d, modem connector 13e and mouse connector 13f (Watts, col. 4, lines 50-55; Figure 6). The port 13d is a commonly known serial port used to connect a serial printer, external modem, serial mouse, or other serial devices to a personal computer.

Column 4, line 65 - column 5, line 1 of Watts has no disclosure or teaching of attaching connector 13d to the docking station 10.

Indeed, none of Figures 1-65 from Watts disclose or suggest that serial connector 13d connects to the docking station in any configuration. For example, Figure 10 shows a back wall 63 covering where serial connector 13d would reside when the mobile computer 13 is placed into docking station 10. There is no teaching or suggestion that connector 13d is used as a bus connecting the docking station 10 to computer 13.

Second, the Examiner alleges Figures 53 and 55 of Watts teach "the second bus [sic] for being coupled to the mobile computer" as described in claim 1. Applicant respectfully disagrees.

Figure 53 "illustrates attaching cables to [a hard] drive," and Figure 55 "illustrates installing front mounted SCSI devices," (Watts, col. 3, lines 40-43). Cables for hard drives and SCSI devices are a far different technology than the first bus of the docking station, as described in the claimed invention. Therefore, there is no teaching or suggestion in Watts of "said first bus residing in said dock housing" as described in claim 1.

assumes the Examiner intended to analogize serial bus connection 13d from Watts to the second bus of the presently claimed invention, which, as stated later in paragraph 7, is "coupled to the mobile computer," and that the Examiner intends the "expansion bus (second bus) of the docking station 10" from Watts to be analogized to the "first bus residing in the docking house" of the present invention.

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The Examiner has further alleged that connector 13 is a bridge for connecting serial bus 13d (first bus) of the portable computer 13d and expansion bus (second bus) of the docking station as disclosed in Figures 53, 55. As described above, serial bus 13d in Watts does not connect to docking station 10 and Figures 53 and 55 illustrate hard drives in a docking station 10, not a separate bus. Further, the claimed bridge is "an extended bridge that is coupled between said first bus and a second bus."

The connector port on the back-end of Watts' mobile computer 13 is either the same as, or houses, serial connector port 13d (that the Examiner alleges as the claimed "second bus") and therefore logically cannot fall between a first and second bus. Additionally, the claimed bridge is a separately claimed structure from the first and second busses. Connector port 13d is the same structure alleged as the second bus by the Examiner. One connector port 13d cannot qualify as two separate structures to meet the claimed bridge and second bus having their recited interconnections.

Therefore, there is no teaching or suggestion of "an extended bridge that is coupled between said first bus and a second bus, said first bus residing in said dock housing and said second bus for being coupled to the mobile computer," as recited in claim 1 and described in claims 2-5 and 8-12.

The Examiner further alleges that slot 11 of docking station 10 teaches a "docking sleeve" as described in claim 1 (Watts, Fig. 3). However, slot 11 in docking station 10 does not teach or suggest a "docking sleeve for mounting into said dock housing, wherein said mobile computer is slidably fitted into said docking sleeve," as recited in claim 1 and described in claims 8 and 10.

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The docking sleeve of the claimed invention is a separate structure that houses a mobile computer, not a void within the docking station. In an exemplary embodiment, the docking sleeve is preferably field-mountable (e.g., mountable by the end-user such that different sleeves can be optionally adapted to different laptops). The docking sleeve dimensions can preferably be adjusted to accommodate different-sized computer devices. Preferably, each mobile computer would have its own dedicated docking sleeve that attaches to a common docking station. (Application, p. 9, lines 1-12).

Therefore, there is no teaching or suggestion in Watts of the claimed docking sleeve. Again, the sleeve is neither a slot nor a void in the docking station. Rather, it is a separate structure in which a mobile computer is slidably fitted into, after which the combined computer-sleeve unit may be mated with a connector for a secondary bus.

Further, there is no teaching or suggestion in Watts of a docking sleeve that is "adjustable," as recited in claim 1. That is, the benefit of the adjustable docking sleeve of the claimed invention is that computers of different sizes can be accommodated for docking into a common docking station (Application, p. 9). This novel feature is not disclosed or suggested in Watts.

The Examiner alleges portable computer 13, slot 11, and docking station 10 of Watts teach using a connection over the input-output bus to drive the graphics adapter, as described in claim 8, and that Figures 2 and 4, and monitor 15 of Watts teach a display panel coupled to the docking station and for being attached to the mobile computer via the docking station, as described in claim 10. However, in the claimed invention, the graphics adapter of claim 8 and

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display panel of claim 10 are both attached to, and driven by, the input-output bus between the mobile computer and the docking station.

In Watts, a Video Monitor port resides in the back of docking station 10 (Fig. 10). The port is described as a "VGA Monitor" rear panel connector, a "pass-through port from the portable computer," (Watts, col. 26, lines 15-20). Since the video adapter and video display connection for docking station 10 in Watts is a "pass-through port from the portable computer," and not connected to a bus between computer 13 and docking station 10, there is no teaching or suggestion in Watts of a graphics adapter or video display driven by the input-output bus of the claimed invention.

In other words, the video feed in Watts is a pass-through adapter directly from a video port out of mobile computer 13. There is no teaching or suggestion of "a desktop display panel for being operatively coupled to said mobile computer . . . a dock for mating with the mobile computer using a connection over the input/output (I/O) bus to drive the graphics adapter," as described in claim 8 and substantially in claim 22, and "a flat panel display formed with said docking station for being coupled to said mobile computer via said docking station, an adapter of said mobile computer using one of a serial connector and a parallel connector to mate the two sides of the bridge," as described in claim 10 (emphasis Applicant's). Further, there is no teaching or suggestion of "a video adaptor of the display that is housed in said base and connected to said first and second bus," as described in claim 10 (emphasis Applicant's).

Applicant further traverses the Examiner's opinion of Official Notice regarding a selectively adjustable docking station as described in claim 16. As is vastly described in the 662

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columns of text and 65 figures of Watts, specifications for a docking station are detailed, complicated, and precise. One skilled in the art knows that docking stations, such as the station in Watts, are carefully made to house specific software, custom connections, and exact dimensions of a mobile computer (see, for example, Watts, column 6, which describes exact specifications and fittings for loading the mobile computer 13 into docking station 10 and Figures 9-10).

Watts is a conventional docking station, which is designed to house one specific type of mobile computer. One skilled in the art would not, for example, insert an IBM Thinkpad® mobile computer into a Texas Instruments' (TI) docking station that was designed and built for a TI mobile computer and expect the IBM computer to fit into the docking station, or moreover for the IBM system to even work with the TI system. This exemplifies a novel concept of the claimed invention, i.e., creating an "all-in-one" docking station that is able to receive different mobile devices of varying sizes having varying connection ports housed in a docking sleeve and connected through an extended bus bridge. Hence, the novel docking sleeve eliminates the problem, described above, of non-standard sizes and connection ports in different computers for use in a single common docking station.

Therefore, the Examiner is respectfully requested to reconsider and withdraw the Official Notice opinion and rejection regarding claim 16.

Further, regarding all rejections of the present claims over Watts, the Examiner has overlooked a fundamental requirement of Watts that is not required by the claimed invention. Watts requires the use of "at least one PCMCIA option card slot in the docking station," (col. 2, lines 5-12). The claimed invention does not require the use of a PCMCIA connection and a

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controller for the PCMCIA connection to provide necessary hardware and software interfaces.

Indeed, in Watts the “computer docking station further includes a controller in the docking station to provide the necessary hardware interface between the PCMCIA cart [sic] slot and the portable computer and software means for providing the necessary driver support,” (col. 2, lines 13-17) (emphasis Applicant’s). Instead, the present invention uses the “extended bridge that is coupled between said first bus and second bus,” as recited in claim 1, to provide hardware connections and software transmissions between a portable computer and a docking station.

Thus, turning to the exemplary language of claim 1, there is no teaching or suggestion of “[a] docking station for a mobile computer, comprising:

a dock housing for being coupled to a desktop display and including a first bus;

an extended bridge that is coupled between said first bus and a second bus, said first bus residing in said dock housing and said second bus for being coupled to the mobile computer;
and

an adjustable docking sleeve for mounting into said dock housing, wherein said mobile computer is slidably fitted into said docking sleeve and mates with a connector for a secondary bus,” as recited in claim 1 (emphasis Applicant’s).

For at least the reasons outlined above, Applicant respectfully submits that Watts fails to anticipate or render obvious every feature of claims 1-16 and 19-23.

For the reasons stated above, the claimed invention is fully patentable over the cited references. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

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III. CONCLUSION

In view of the foregoing, Applicant submits that claims 1-16, and 19-26, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.


Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

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The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,


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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Supplemental Amendment was filed by facsimile with the United States Patent and Trademark Office, Examiner Tim H. Vo, Group Art Unit # 2181 at fax number 703-746-7239 this 9th day of June, 2003.


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Twice Amended) A docking station for a mobile computer, comprising:
a dock housing for being coupled to a desktop display and including a first bus;
[a] an extended bridge that is coupled between said first bus and a second bus, said first bus residing in said dock housing and said second bus for being coupled to the mobile computer;
and
an adjustable docking sleeve [attached to] for mounting into said dock housing, wherein said mobile computer is slidably fitted into said docking sleeve and mates with a connector for a secondary bus.
2. (Amended) The station according to claim 1, wherein said extended bridge comprises a serial bridge which separates two sides of the bridge using a parallel connector.
3. (Amended) The station according to claim 1, wherein said extended bridge comprises a serial bridge which separates two sides of said extended bridge using a serial communications layer.
4. (Amended) The station according to claim 1, wherein one of said first and second busses comprises a primary bus and the other of said first and second busses comprises a secondary bus and wherein said extended bridge comprises a separated bridge such that a first side of the separated bridge is placed on said primary bus, and a second side of said separated bridge is

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implemented on said secondary bus or a bus extension.

8. (Twice Amended) A communication system, comprising:

a mobile computer including an input/output (I/O) bus and a graphics adapter;

a desktop display panel for being operatively coupled to said mobile computer;

a pointing device for providing inputs for display on said panel;

a dock for mating with the mobile computer using a connection over the input/output (I/O) bus to drive the graphics adapter and the panel along with the pointing device;

an adjustable docking sleeve [on] for mounting into said dock, wherein said mobile computer is slidably fitted into the docking sleeve and mates with a connector for a bus of the dock,

wherein said I/O bus comprises an extended bridge that is coupled between a first bus and a second bus, said first bus residing in said dock and said second bus for being coupled to the mobile computer,

wherein a base of the desktop display panel is selectively connected to said pointing device, and

wherein computing power is provided by the mobile computer with access to [the user's] data from the mobile computer.

10. (Twice Amended) A computer system, comprising:

a mobile computer;

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a docking station for receiving said mobile computer;

[a] an extended bridge [having a first side coupled to said mobile computer and a second side coupled to said docking station] that is coupled between said first bus and a second bus, said first bus residing in said dock housing and said second bus for being coupled to the mobile computer, wherein said extended bridge separates said first bus and said second bus; and

a flat panel display formed with said docking station for being coupled to said mobile computer via said docking station, an adapter of said mobile computer using one of a serial connector and a parallel connector to mate the two sides of the bridge,

wherein said flat panel display includes a base, wherein said docking station is mounted on said base, and said base including a peripheral device for storing an additional application and data for when said mobile computer is used in a desktop mode[.];

an adjustable docking sleeve [that is slidably fitted] for mounting into said base, wherein said mobile computer is slidably fitted into said docking sleeve; and

a video adaptor of the display that is housed in said base and connected to said first and second bus.

14. (Amended) The system according to claim 12, wherein [said docking station includes a docking sleeve, and] said mobile computer is slidably fitted into said docking sleeve and mates with a connector for the [dock's] secondary bus, and

wherein a base of the flat panel display is selectively connected to an input device and a pointing device, a video adaptor of the display being connected to an input/output (I/O) bus and

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housed in the base.

21. (Amended) The system according to claim [18] 10, further comprising:
a cooling fan formed in said base.